

REMARKS:

Claims 1-46 are pending. Claims 1 and 21 are amended by this paper. Applicant respectfully requests entry of the above amendments and consideration of the following remarks.

Response to Advisory Action

In response to the Examiner's comments in the Advisory Action mailed October 24, 2006, Applicants note with respect to independent claims 1 and 21 that the Examiner has addressed the claim elements, such as the ramp carriage, and the belt in communication with a drive pulley, in isolation from one another. The claims, however, also recite that the belt is in communication with the ramp carriage in addition to being in communication with the drive pulley. The Examiner has failed to address the fact that Cohn, taken alone or in combination with Lewis, does not and cannot teach a workable combination of these elements, as discussed below.

With respect to independent claims 43 and 44, the Examiner merely asserts that the use of rollers to provide smooth movement between sliding members is well known, while ignoring the remaining elements of claims 43 and 44. As discussed further below, there is nothing in the combined teachings of Cohn and Grant that would lead one of ordinary skill in the art to arrive at the claimed invention.

35 U.S.C. §103 Rejections

1. Claims 1-8, 12-15, 20-24, 32, 36-39, 45 and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,010,298 ("Cohn") in view of U.S. Patent No. 6,602,041 ("Lewis").

Claim 1 is hereby amended and recites:

A retractable ramp system comprising:
a frame;
a ramp platform;
a ramp carriage assembly for moving said ramp platform, the ramp carriage assembly movable with respect to the frame;
a motor coupled to the frame;
a motor drive shaft;
a drive pulley connected with said motor drive shaft;
a belt in communication with said drive pulley and said ramp carriage assembly; and

a motor release assembly configured to disconnect and connect said drive pulley from said motor.

Cohn teaches a reciprocating mechanism 26 that is movably coupled to a frame 24. The reciprocating mechanism is also coupled to a ramp platform 28 and carries an electric motor 72 (col. 7, lines 13-14 and 25-27). Operation of the electric motor 72 moves the reciprocating mechanism 26, the ramp platform 28, and the motor 72 itself with respect to the frame 24 to move the ramp platform 28 between stowed and deployed positions.

Cohn does not teach or suggest, among other things, the combination of a ramp carriage assembly for moving a ramp platform where the carriage assembly is movable with respect to both the frame and a motor coupled to the frame. Rather, Cohn teaches that the motor is coupled to and carried by the reciprocating mechanism (*i.e.*, the carriage) which moves the ramp platform.

Furthermore, Cohn specifically teaches away from the configuration of claim 1. At col. 14, lines 9-14 Cohn states that “the present invention also provides the convenient reciprocating mechanism 26 that includes an electric motor 72 that is mounted for reciprocating motion with the ramp platform 28. This design saves space, and does not require a mounting structure for a motor underneath or behind the rectangular enclosure 24.” Thus, Cohn expressly teaches away from a configuration as recited in the amended claims in which the motor is coupled to the frame and the ramp carriage is moveable with respect to the frame and motor. Such a configuration would negate the stated advantages of Cohn’s design.

Lewis does not cure the deficiencies of Cohn because Lewis does not teach a ramp carriage assembly for moving a ramp platform at all, much less a ramp carriage assembly that is movable with respect to a frame having a motor coupled thereto. The combination of Cohn and Lewis is therefore insufficient to establish a *prima facie* case of obviousness under 35 U.S.C. §103.

For these and other reasons, the combination of Cohn and Lewis does not teach or suggest the subject matter of independent claim 1. Accordingly, independent claim 1 is allowable. Claims 1-8, 12-15, 20, and 45 depend from independent claim 1 and are therefore allowable for at least the same reasons as independent claim 1.

Claim 21 is hereby amended and recites:

A method of operating a retractable ramp system, the method comprising:
providing a ramp platform;

moving the ramp platform with a ramp carriage assembly;
powering the ramp platform with a motor having a motor drive shaft;
providing a drive pulley upon the motor drive shaft;
moving the ramp carriage assembly relative to the motor with a belt in
communication with the drive pulley and ramp carriage assembly; and
disconnecting and connecting the drive pulley from the motor using a motor
release assembly.

Cohn does not teach or suggest, among other things, moving a ramp carriage assembly relative to a motor. Cohn instead teaches that the motor is mounted on the reciprocating mechanism for movement therewith. There is no motivation to modify the device of Cohn to operate in the manner recited in claim 21. Indeed, Cohn specifically teaches away from a device in which a ramp carriage assembly moves relative to a motor because, according to Cohn, mounting the motor on the reciprocating device “saves space, and does not require a mounting structure for a motor underneath or behind the rectangular enclosure 24.” Col. 14, lines 9-14.

Lewis does not cure the deficiencies of Cohn because Lewis does not provide a ramp carriage assembly at all, much less a ramp carriage assembly that moves relative to a motor. As such, the combination of Cohn and Lewis is insufficient to establish a *prima facie* case of obviousness under 35 U.S.C. §103.

For these and other reasons, the combination of Cohn and Lewis does not teach or suggest the subject matter of independent claim 21. Accordingly, independent claim 21 is allowable. Claims 22-24, 32, 36-39 and 46 depend from independent claim 21 and are therefore allowable for at least the same reasons as independent claim 21.

2. Claims 9-11 and 33-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cohn in view of Lewis and further in view of U.S. Patent No. 3,983,584 (“Holecek”).

Claims 9-11 depend from independent claim 1, and claims 33-35 depend from independent claim 21. Claims 1 and 21 are allowable for at least the reasons discussed above. Claims 9-11 and 33-35 are therefore allowable for at least the same reasons as independent claims 1 and 21, respectively.

3. Claims 16-19, and 40-44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cohn in view of Lewis and further in view of U.S. Patent No. 5,257,894 (“Grant”).

Claims 16-19 depend from independent claim 1, and claims 40-42 depend from independent claim 21. Claims 1 and 21 are allowable for at least the reasons discussed above.

Claims 16-19 and 40- 42 are therefore allowable for at least the same reasons as independent claims 1 and 21, respectively.

Claim 43 recites:

A method of deploying a retractable ramp system, the method comprising:
rotating a motor shaft;
rotating a drive pulley with the motor shaft;
moving a drive belt with the drive pulley;
deploying a ramp carriage assembly for a ramp platform with the drive belt;
pivoting the ramp platform around support bearings of the ramp carriage
assembly when the ramp platform deploys beyond a predetermined point; and
dropping wheels of a ramp flap into a cutout defined in the ramp platform when
the ramp platform deploys.

As conceded by the Examiner, Cohn does not teach dropping wheels of a ramp flap into a cutout defined in the ramp platform when the ramp platform deploys. The Examiner therefore relies on Grant to cure this deficiency in rejecting claim 43.

Claim 43 recites that the wheels of the ramp flap drop into a cutout defined in the ramp platform. Claim 43 also recites that the ramp platform is pivoted around support bearings when the ramp platform deploys. Thus, the wheels of the ramp flap drop into cutouts of the pivoted ramp platform when the ramp platform deploys.

Cohn does not teach a ramp flap at all, much less a ramp flap with wheels that drop into cutouts in a ramp platform. Grant fails to teach or suggest the configuration of claim 43. The wheels of the floating lock plate of Grant do not drop into cutouts in a pivoted ramp platform as claimed in claim 43. The wheels of the floating lock plate in Grant instead drop into cutouts 28 provided on the second portion 26 of the loading ramp 20, which does not and cannot pivot at all. The combination of Cohn, Lewis and Grant is therefore insufficient to establish a *prima facie* case of obviousness under 35 U.S.C. §103.

For these and other reasons, the combination of Cohn, Lewis and Grant does not teach or suggest the subject matter of independent claim 43. Accordingly, independent claim 43 is allowable.

Claim 44 recites:

a method of stowing a retractable ramp system, the method comprising:
rotating a motor shaft;
rotating a drive pulley with the motor shaft;
moving a drive belt with the drive pulley;

stowing a ramp carriage assembly for a ramp platform with the drive belt;
pivoting the ramp platform around support bearings of the ramp carriage
assembly;
rotating a ramp flap into a horizontal position with a force provided by brackets
connected with wheels connected with an underside of the ramp flap; and
translating the ramp flap wheels along the ramp platform.

As conceded by the Examiner, Cohn does not teach wheels connected with an underside of a ramp flap. The Examiner therefore relies on Grant to cure this deficiency in rejecting claim 43. At col. 7 lines 2-7, Grant states “[i]n use, a single person can remove the loading ramp 20 from the stowing chamber 40 by lifting the floating lock plate 60 until the locking bracket 66 is removed from the locking slot 24 and then sliding the loading ramp 20 from the chamber 40.” This is the only discussion in the disclosure of Grant regarding removal of the locking bracket 66 from the locking slot. Presumably, the same process, manual lifting, is used to remove the locking bracket 66 from the locking slot 28 when the loading ramp 20 is being stowed.

Grant therefore does not teach or suggest rotating a ramp flap into a horizontal position with a force provided by brackets connected with wheels connected with an underside of the ramp flap as recited by claim 44. Instead, Grant teaches manually lifting the lock plate. Because Grant does not cure the deficiencies of Cohn and Lewis, the combination of these reference is insufficient to establish a *prima facie* case of obviousness under 35 U.S.C. §103.

For these and other reasons, the combination of Cohn, Lewis and Grant does not teach or suggest the subject matter of independent claim 44. Accordingly, independent claim 44 is allowable.

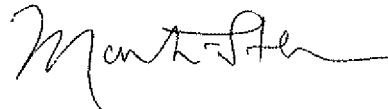
4. Claims 25-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cohn in view of Lewis and further in view of U.S. Patent No. 1,024,580 (“Hunter”).

Claims 25-31 depend from independent claim 21, which is allowable for at least the reasons discussed above. Claims 25-31 are therefore allowable for at least the same reasons as independent claim 21.

CONCLUSION:

In view of the foregoing, allowance of Claims 1-46 is respectfully requested. The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Martin L. Stern". The signature is fluid and cursive, with a long horizontal stroke at the end.

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